

ABSTRACT

An exemplary cascode amplifier circuit comprises a first intrinsic FET, a second intrinsic FET, a third intrinsic FET, and a fourth FET. The first intrinsic FET has a source connected to a target memory cell via a bit line and a drain connected to a first node. The second intrinsic FET has a gate connected to the source of the first intrinsic FET and a source connected to a reference voltage. The second intrinsic FET also has a drain connected at a second node to a gate of the first intrinsic FET. The third intrinsic FET has a source connected to the first node and a gate connected to a supply voltage, and further provides a load across the supply voltage and the first node. The fourth FET has a source connected to the second node and a drain connected to the supply voltage, the fourth FET having a gate connected to an input control voltage.

**Figure 1 should accompany the Abstract.**